Virginia Article 1- Federal Operating Permit
Title V Operating Permit

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee/Facility Name: Facility Location:	Spruance Genco, LLC 5001 Commerce Road Richmond, Virginia 23234
Registration Number: Permit Number:	51033 PRO-51033

June 5, 2006
Effective Date

March 6, 2006
Amended Date

June 5, 2011
Expiration Date

David K. Paylor
Director, Department of Environmental Quality

Signature Date

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Spruance Genco, LLC
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I. Facility Information

Permittee
Cogentrix Energy, Inc.
9405 Arrowpoint Boulevard
Charlotte, North Carolina 28273

Responsible Official
Frank Harrison
Plant Manager
Spruance Genco, LLC

Facility
Spruance Genco, LLC
5001 Commerce Road
Richmond, Virginia 23234

Contact person
Tracy L. Patterson
Air Quality Manager
704-672-2737

County Plant Identification Number: 51-760-0399

Facility Description: NAICS Number: 221112 - Spruance Genco, LLC is a cogeneration plant that combusts fuel in 8 boilers, each rated at 375 million BTU per hour to produce steam. A portion of the steam is sold to an industrial host. The rest is used to drive 4 turbine-generators to provide electricity, which is sold to Virginia Power. The major units at the facility are the 8 boilers. The configuration is that 2 boilers are connected to 1 turbine generator and are exhausted through a common stack. Each boiler is rated at 375 million BTU per hour. The boilers are permitted for a variety of fuels. Emissions of NOx are controlled by flue gas recirculation with methane reburn. Urea injection (Selective Non-Catalytic Reduction, SNCR) may also be used. Emissions of SO_2 are controlled by spraying atomized recycle ash/lime slurry into the gas path (dry flue gas desulfurization). Emissions of particulate matter are controlled by pulse jet fabric filter baghouses. The combustion gases from two baghouses exhaust to a common stack.

Other emission sources on the plant site include the solid fuel handling operations and the ash handling operations, and slurry preparation activities.

II. Emission Units

Equipment to be operated consists of:

Fuel Burning Equipment (Boilers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B)

Emission Unit Id	Stack Id	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description[(1)]	PCD ID	Pollutant Controlled	Applicable Permit Date
1A	001	Combustion Engineering Stoker Boiler/1991	375 mmbtu/hr 295,000 lbs steam/hr	Joy PP6014-272-6 Module fabric filter baghouse/99.9%	1A	PM	02/12/01
				Joy-Niro Dry Flue Gas Desulfurization/90%	1C	SO_2	02/12/01
				Flue Gas Recirculation w/Natural Gas Reburn and urea injection/65%	1E	NO_x	02/12/01
1B	001	Combustion Engineering Stoker Boiler/1991	375 mmbtu/hr 295,000 lbs steam/hr	Joy PP6014-272-6 Module fabric filter baghouse/99.9%	1B	PM	02/12/01
				Joy-Niro Dry Flue Gas Desulfurization/90%	1D	SO_2	02/12/01
				Flue Gas Recirculation w/Natural Gas Reburn and urea injection/65%	1F	NO_x	02/12/01
2A	002	Combustion Engineering Stoker Boiler/1991	375 mmbtu/hr 295,000 lbs steam/hr	Joy PP6014-272-6 Module fabric filter baghouse/99.9%	2A	PM	02/12/01
				Joy-Niro Dry Flue Gas Desulfurization/90%	2C	SO_2	02/12/01
				Flue Gas Recirculation w/Natural Gas Reburn and urea injection/65%	2E	NO_x	02/12/01
2B	002	Combustion Engineering Stoker Boiler/1991	375 mmbtu/hr 295,000 lbs steam/hr	Joy PP6014-272-6 Module fabric filter baghouse/99.9%	2B	PM	02/12/01
				Joy-Niro Dry Flue Gas Desulfurization/90%	2D	SO_2	02/12/01
				Flue Gas Recirculation w/Natural Gas Reburn and urea injection/65%	2F	NO_x	02/12/01
3A	003	Combustion Engineering Stoker Boiler/1991	375 mmbtu/hr 295,000 lbs steam/hr	Joy PP6014-272-6 Module fabric filter baghouse/99.9%	3A	PM	02/12/01
				Joy-Niro Dry Flue Gas Desulfurization/90%	3C	SO_2	02/12/01
				Flue Gas Recirculation w/Natural Gas Reburn and urea injection/65%	3E	NO_x	02/12/01

Emission Unit Id	Stack Id	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description[(1)]	PCD ID	Pollutant Controlled	Applicable Permit Date
3B	003	Combustion Engineering Stoker Boiler/1991	375 mmbtu/hr 295,000 lbs steam/hr	Joy PP6014-272-6 Module fabric filter baghouse/99.9%	3B	PM	02/12/01
				Joy-Niro Dry Flue Gas Desulfurization/90%	3D	SO_2	02/12/01
				Flue Gas Recirculation w/Natural Gas Reburn and urea injection/65%	3F	NO_x	02/12/01
4A	004	Combustion Engineering Stoker Boiler/1991	375 mmbtu/hr 295,000 lbs steam/hr	Joy PP6014-272-6 Module fabric filter baghouse/99.9%	4A	PM	02/12/01
				Joy-Niro Dry Flue Gas Desulfurization/90%	4C	SO_2	02/12/01
				Flue Gas Recirculation w/Natural Gas Reburn and urea injection/65%	4E	NO_x	02/12/01
4B	004	Combustion Engineering Stoker Boiler/1991	375 mmbtu/hr 295,000 lbs steam/hr	Joy PP6014-272-6 Module fabric filter baghouse/99.9%	4B	PM	02/12/01
				Joy-Niro Dry Flue Gas Desulfurization/90%	4D	SO_2	02/12/01
				Flue Gas Recirculation w/Natural Gas Reburn and urea injection/(65%	4F	NO_x	02/12/01

(1) The facility has the option of using urea injection in combination with the flue gas recirculation and gas reburn to achieve NO_x emission rates that are lower than those listed in the PSD permit. This option may become necessary due to pending regulation.

Solid Fuel Storage Bunkers

Emission Unit Id	Stack Id	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1-2A	1-2A	Blr 1A solid fuel storage bunker	270 tons fuel/hr	Dalamatic DLMV15 fabric filter baghouse (99.9%)	1-2A	PM	02/12/01
1-2B	1-2B	Blr 1B solid fuel storage bunker	270 tons fuel/hr	Dalamatic DLMV15 fabric filter baghouse (99.9%)	1-2B	PM	02/12/01
2-2A	2-2A	Blr 2A solid fuel storage bunker	270 tons fuel/hr	Dalamatic DLMV15 fabric filter baghouse (99.9%)	2-2A	PM	02/12/01
2-2B	2-2B	Blr 2B solid fuel storage bunker	270 tons fuel/hr	Dalamatic DLMV15 fabric filter baghouse (99.9%)	2-2B	PM	02/12/01
3-2A	3-2A	Blr 3A solid fuel storage bunker	270 tons fuel/hr	Dalamatic DLMV15 fabric filter baghouse (99.9%)	3-2A	PM	02/12/01
3-2B	3-2B	Blr 3B solid fuel storage bunker	270 tons fuel/hr	Dalamatic DLMV15 fabric filter baghouse (99.9%)	3-2B	PM	02/12/01
4-2A	4-2A	Blr 4A solid fuel storage bunker	270 tons fuel/hr	Dalamatic DLMV15 fabric filter baghouse (99.9%)	4-2A	PM	02/12/01
4-2B	4-2B	Blr 4B solid fuel storage bunker	270 tons fuel/hr	Dalamatic DLMV15 fabric filter baghouse (99.9%)	4-2B	PM	02/12/01
FS3	FS3	Solid fuel unloading and stock out: unloading hopper, covered conveyor, stock out tube	600 tons solid fuel/hr	Wet Suppression/Deter Series 5000 surfactant spray	FS3	PM	02/12/01

Unit 1 and 2 Ash System (1-3) rated at 4 tons of ash per hour

Emission Unit Id	Stack Id	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1-3	1-3A	Bottom Ash Storage Silo	4 tons ash/hour	A-S-H Fabric filter Baghouse (99.9%)	1-3A	PM	02/12/01
1-3	1-4A	Fly ash storage silo	4 tons ash/hour	A-S-H Fabric filter Baghouse (99.9%)	1-4A	PM	02/12/01
1-3	1-3B	Vacuum Pump	4 tons ash/hour	A-S-H T-42 Fly ash secondary collector with Flex Kleen 100 CTWC-38 IIG fabric filter baghouse[1]	1-3E	PM	02/12/01
1-3	1-3C	Vacuum Pump	4 tons ash/hour		1-3F		
1-3	1-3D	Vacuum Pump	4 tons ash/hour	A-S-H T-42 Bottom ash silo primary collector	1-4C		
				A-S-H T-42 Bottom ash silo primary collector	1-4D		
1-3	1-3G[3]	Wet unloader/pugmill	4 tons ash/hour	A-S-H C-40 Pugmill [2]	1-3G	PM	02/12/01
1-3	1-4B[3]	Wet unloader/pugmill	4 tons ash/hour	A-S-H C-40 Pugmill [2]	1-4B	PM	02/12/01

(1) The vacuum pumps are controlled by a cyclone, bagfilter and in-line filter. The cyclone's exhaust is controlled by the baghouse. The cyclone and baghouse are two separate units. Each is assigned a PCP ID number. The exhaust from the secondary collectors (2 each) can be diverted to one of the three vacuum pumps.
(2) The pugmill is a piece of process equipment; however, as part of the process, the ash is watered so that particulate emissions are greatly reduced. Therefore, in this chart, the pugmill is treated as a control device.
(3) Fugitive emission points

Unit 3 and 4 Ash System (3-3) rated at 4 tons of ash per hour

Emission Unit Id	Stack Id	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
3-3	3-3A	Bottom Ash Storage Silo	4 tons ash/hour	A-S-H Fabric filter Baghouse (99.9%)	3-3A	PM	02/12/01
3-3	3-4A	Fly ash storage silo	4 tons ash/hour	A-S-H Fabric filter Baghouse (99.9%)	3-4A	PM	02/12/01
3-3	3-3B	Vacuum Pump	4 tons ash/hour	A-S-H T-42 Fly ash secondary collector with Flex Kleen 100 CTWC-38 IIG fabric filter baghouse (1)	3-3E	PM	02/12/01
3-3	3-3C	Vacuum Pump	4 tons ash/hour		3-3F		
3-3	3-3D	Vacuum Pump	4 tons ash/hour	A-S-H T-42 Bottom ash silo primary collector	3-4C		
				A-S-H T-42 Bottom ash silo primary collector	3-4D		
3-3	3-3G(3)	Wet unloader/pugmill	4 tons ash/hour	A-S-H C-40 Pugmill (2)	3-3G	PM	02/12/01
3-3	3-4B(3)	Wet unloader/pugmill	4 tons ash/hour	A-S-H C-40 Pugmill (2)	3-4B	PM	02/12/01

(1) The vacuum pumps are controlled by a cyclone, bagfilter and in-line filter. The cyclone's exhaust is controlled by the baghouse. The cyclone and baghouse are two separate units. Each is assigned a PCP ID number. The exhaust from the secondary collectors (2 each), consisting can be diverted to one of the three vacuum pumps.
(2) The pugmill is a piece of process equipment; however, as part of the process, the ash is watered so that particulate emissions are greatly reduced. therefore, in this chart, the pugmill is treated as a control device.
(3) Fugitive emission points

Unit 1 Recycle Ash/LimeSystem rated at 4 tons of ash/hr

Emission Unit Id	Stack Id	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1-5A	1-5A	Storage silo (recycle ash)	4 tons ash/hour	Griffen JV-36-4X Binvent (99.9%)	1-5A	PM	02/12/01
1-5B	1-5B	Truck Unloader	4 tons ash/hour	ASH C-40 Pugmill or Dry Unloader (98%)	1-5B	PM	02/12/01
1-6	1-6	Storage silo (pelletized lime)	4 tons lime/hour	Griffen JV-36-4X Binvent	1-6	PM	02/12/01

Unit 2 Recycle Ash/Lime System rated at 4 tons of ash/hr

Emission Unit Id	Stack Id	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
2-5A	2-5A	Storage silo (recycle ash)	4 tons ash/hour	Griffen JV-36-4X Binvent (99.9%)	2-5A	PM	02/12/01
2-5B	2-5B	Truck Unloader	4 tons ash/hour	ASH C-40 Pugmill or Dry Unloader (98%)	2-5B	PM	02/12/01
2-6	2-6	Storage silo (pelletized lime)	4 tons lime/hour	Griffen JV-36-4X Binvent	2-6	PM	02/12/01

Unit 3 Recycle Ash System rated at 4 tons of ash/hr

Emission Unit Id	Stack Id	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
3-5A	3-5A	Storage silo (recycle ash)	4 tons ash/hour	Griffen JV-36-4X Binvent (99.9%)	3-5A	PM	02/12/01
3-5B	3-5B	Truck Unloader	4 tons ash/hour	ASH C-40 Pugmill or Dry Unloader (98%)	3-5B	PM	02/12/01
3-6	3-6	Storage silo (pelletized lime)	4 tons ash/hour	Griffen JV-36-4X Binvent	3-6	PM	02/12/01

Unit 4 Recycle Ash System rated at 4 tons of ash/hr

Emission Unit Id	Stack Id	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
4-5A	4-5A	Storage silo (recycle ash)	4 tons ash/hour	Griffen JV-36-4X Binvent (99.9%)	4-5A	PM	02/12/01
4-5B	4-5B	Truck Unloader	4 tons ash/hour	ASH C-40 Pugmill or Dry Unloader (98%)	4-5B	PM	02/12/01
4-6	4-6	Storage silo (pelletized lime)	4 tons ash/hour	Griffen JV-36-4X Binvent	4-6	PM	02/12/01

III. Definitions

Boiler Operating Day: means a 24 hour period during which fossil fuel is combusted in a steam generating unit for the entire 24 hours.
(9 VAC 5-50-410, 40 CFR 60.41a)

Affected Facility: Each electric utility steam generating unit.
(9 VAC 5-50-410,40 CFR 60.40a)

Steam Generating Unit: Any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam.
(9 VAC 5-50-410, 40 CFR 60.41a)

Continuous Opacity Monitoring System Data Point: A minimum of one cycle of sampling and analyzing for each successive 10 second period and 1 cycle of data recording for each successive 6 minute period.
(9 VAC 5-50-410, 40 CFR 60.13(e))

Continuous Emission Monitoring System Data Point: A minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15 minute period.
(9 VAC 5-50-410, 40 CFR 60.13(e))

IV. Boilers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B

A. Limitations

1. TSP and PM_{10} from each of the boilers (equipment numbers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) shall be controlled by a spray dryer/fabric filter baghouse. The fabric filter baghouses shall have a minimum of 99.9% control efficiency and shall be provided with adequate access for inspection. Each fabric filter baghouse shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained and calibrated by the permittee such that it is in proper working order at all times and as suggested by the manufacturer.

   (9 VAC 5-50-280, 9 VAC 5-80-110, Condition 4 of 02/12/01 permit, 40 CFR 60.42a(a)(2))

2. NO_x emissions from each of the boilers (equipment numbers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) shall be controlled by Flue Gas Recirculation (FGR) and may be supplemented with SNCR as necessary. The Flue Gas Recirculation may be supplemented with Methane Reburn as necessary to meet the emission limits contained in Condition IV.A.6. The NO_x reduction achieved while burning solid fuels shall be at least 65%. Compliance with the emission limitations contained in Condition IV.A.6 shall constitute compliance with the percent reduction requirement. The FGR and SNCR systems shall be provided with adequate access for inspection.

   (9 VAC 5-50-280, Condition 9 of 02/12/01 permit, 40 CFR 60.44a(a)(2), 40 CFR 60.44a(b))

3. NO_X emissions from each of the boilers (equipment numbers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) while burning natural gas and fuel oil shall be controlled by the use of low NO_x burners. The NO_x reduction achieved while burning gaseous fuels shall be at least 25%. The NO_x reduction achieved while burning liquid fuels shall be at least 30%. Compliance with the NO_x standards listed in Condition IV.A.6 shall constitute compliance with the percent reduction requirements. The boilers shall be provided with adequate access for inspection.

   (9 VAC 5-50-280, Condition 10 of 02/12/01 permit, 40 CFR 60.44a (a) (2), 40 CFR 60.44a (b))

4. SO_2 emissions from each of the boilers (equipment numbers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) shall be controlled by a lime spray dryer/fabric filter baghouse. The lime injection spray dryer for each boiler shall achieve a minimum 90% reduction efficiency based on a 30 day rolling average and shall be provided with adequate access for inspection.

   (9 VAC 5-50-280, Condition 11 of 02/12/01 permit, 40 CFR 60.43a(a)(1))

5. Emissions from the boilers (1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B) shall not exceed those listed in the following table. Annual emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.

Table IV.A.5 - Emission Limitations for 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B

Pollutant	lbs/mmbtu/stack	lbs/hour/stack	tons/year/stack	tons/year for all boilers, combined	Method	Citation
TSP	0.02	15.0	64.7	262.8	5	9 VAC 5-50-280 Condition 15 of 02/12/01 permit Condition 16 of 02/12/01 permit Condition 17 of 02/12/01 permit 40 CFR 60.42a(a)
PM_{10}	0.018	13.5	59.1	236.5	201	9 VAC 5-50-280 Condition 15 of 02/12/01 permit Condition 16 of 02/12/01 permit Condition 17 of 02/12/01 permit 40 CFR 60.42a(a)
SO_2	0.13	97.5	427.1	1708.2	19	9 VAC 5-50-280 Condition 15 of 02/12/01 permit Condition 16 of 02/12/01 permit Condition 17 of 02/12/01 permit 40 CFR 60.43a(a)
CO	0.2	150.0	657.0	2628.0	10	9 VAC 5-50-280 Condition 15 of 02/12/01 permit Condition 16 of 02/12/01 permit Condition 17 of 02/12/01 permit
NOx	0.3 solid and liquid fuels 0.2 gaseous fuels	225.0	985.5	3942.0	19	9 VAC 5-50-280 Condition 15 of 02/12/01 permit Condition 16 of 02/12/01 permit Condition 17 of 02/12/01 permit
VOC	0.003	2.3	9.9	39.0	25A	9 VAC 5-50-280 Condition 15 of 02/12/01 permit Condition 16 of 02/12/01 permit Condition 17 of 02/12/01 permit
Formaldehyde		1.95×10^{-1}			SW-946-M0011(1)	9 VAC 5-50-160 Condition 14 of 02/12/01 permit
Mercury		5.12×10^{-3}			29 101A(1)	9 VAC 5-50-160 Condition 14 of 02/12/01 permit
Beryllium		2.5×10^{-4}			104	9 VAC 5-50-280 Condition 17 of 02/12/01 permit
Sulfuric acid mist		2.3			8	9 VAC 5-50-280 Condition 17 of 02/12/01 permit

(1) Other test methods may be used with prior approval of DEQ.

6. NO_x emissions from each boiler (1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) shall not exceed 0.30 lbs/mmbtu when firing solid or liquid fuels. NO_x emissions from each boiler shall not exceed 0.20 lbs/mmbtu when firing gaseous fuels. NO_x emissions from each boiler shall not exceed the limit calculated by the following formula when firing a combination of gaseous and liquid or solid fuels:

$E = 0.3*X + 0.2*Y$ Where: E=NO_x emission limit in lbs/mmbtu
X=% of total heat input from liquid and solid fuels
Y=% of total heat input from gaseous fuels

(9 VAC 5-50-280, Condition 17 of 02/12/01 permit, 40 CFR 60.44a (a) (1))

7. The SO_2 emission reduction limitations and the NO_x emission limitations listed in Condition IV.A.4 and Condition IV.A.6 of this permit shall be calculated as the average emission rate for 30 successive boiler operating days. Compliance shall be determined by calculated the arithmetic average of all hourly emission rates for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction (NO_x emission limitations only). Compliance with the percentage reduction requirement for SO_2 shall be determined based on the average inlet and average outlet SO_2 emission rates for the 30 successive boiler operating days. At the end of each boiler operating day, a new 30 day average emission rate for NO_x and a new 30 day average percent reduction for SO_2 shall be calculated to show compliance with the standards in Condition IV.A.4 and Condition IV.A.6 of this permit.

   (9 VAC 5-50-410, 9 VAC 5-50-280, Conditions 17 and 19 of 02/12/01 permit, 40 CFR 60.46a(e), 40 CFR 60.46a(g))

8. The SO_2 emission limitation listed in Table IV.A.5 shall be calculated as a rolling three hour average as determined by 40 CFR 60 Appendix A, Method 19.

   (9 VAC 5-170-160, Condition 17 of 02/12/01 permit, 40 CFR 60.46a (g))

9. The particulate emission standards listed in Table IV.A.5 and the NO_x standards listed in Condition IV.A.6 shall apply at all times except during periods of startup, shutdown, or malfunction. The SO_2 standards listed in Table IV.A.5 and Condition IV.A.4 shall apply at all times except during periods of startup or shutdown.

   (9 VAC 5-50-410, 40 CFR 60.46a(c), 40 CFR 60.46a (d))

10. Visible emissions from the stack of each pair of boilers (stack identification numbers 001, 002, 003, and 004) shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity.

    (9 VAC 5-170-160, Condition 20 of 02/12/01 permit, 40 CFR 60.42a (b))

11. The approved fuels for use by the permittee are the following:

Gaseous Fuels	Liquid Fuels	Solid Fuels
Natural gas	Distillate oil Residual oil	Bituminous coal Tire derived fuel (TDF) Wood chips Pelletized paper fuel (PPF) Fly ash briquettes E-Fuel

    (9 VAC 5-170-160, Condition 28 of 02/12/01 permit)

12. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 ≅Standard Specification for Fuel Oils.≅ Residual oil is defined as fuel oil that meets the specifications for fuel oil number 4 under the American Society for Testing and Materials, ASTM D396-78 ≅Standard Specifications for Fuel Oils.≅ The permittee shall obtain a certification from the fuel supplier with each shipment of fuel oil. Each fuel supplier certification shall include the following:

    a. The name of the fuel supplier,

    b. The date on which the oil was received,

c. The volume of fuel oil delivered in the shipment,

d. A statement that the oil complies with the American society for testing and materials specifications for fuel oil numbers 1,2, or 4, and

e. The sulfur content of the oil.

(9 VAC 5-170-160, Condition 29 of 02/12/01 permit)

13. The TDF shall be blended with bituminous coal at a ratio not to exceed twenty percent of the heat input to each boiler burning the TDF.
(9 VAC 5-170-160, Condition 31 of 02/12/01 permit)

14. The annual throughput of each type of fuel to the facility shall not exceed the limits set forth below. The annual throughputs shall be calculated as the sum of the previous 12 month period.

Fuel	Each Boiler	Entire Facility
Gaseous Fuel	674 x 10^6 ft^3/yr	5,392 x 10^6 ft^3/yr
Liquid Fuel	4,836 x 10^3 gal/yr	38,688 x 10^3 gal/yr
Solid Fuel	124,392 tons/yr	995,136 tons/yr

(9 VAC 5-170-160, Condition 32 of 02/12/01 permit)

15. In the event that a boiler is fired with more than one type of fuel during any 12 month period, the following formula shall also be used for that boiler to determine compliance with the fuel throughput limits:

$(27.08 \times 10^6 \text{ btu/ton}) * X + (145.0 \times 10^3 \text{ btu/gallon}) * Y + (1.02 \times 10^3 \text{ btu/ft}^3) * Z < 3.285 \times 10^{12}$ btu/year/boiler

Where: X=tons/year of solid fuel fired in the boiler
Y=gallons/year of liquid fuel fired in the boiler
Z=ft^3/year of gaseous fuel fired in the boiler

(9 VAC 5-170-160, Condition 33 of 02/12/01 permit)

16. During boiler startup, the permittee may use oily rags, used oil absorbents, and wood scraps generated at Spruance Genco, LLC as an acceptable alternative to the manufacturer's recommended materials for providing the initial fire to the boiler prior to combustion of coal.
(9 VAC 5-170-160, Condition 34 of 02/12/01 permit)

17. During normal boiler operation, the facility may dispose of the following non-hazardous wastes generated at Spruance Genco, LLC by combustion in the boilers:

Wastewater basin sludge
Spent demineralizer resins
Spent activated carbon from the water treatment filter
Boiler cleaning solutions

(9 VAC 5-170-160, Condition 35 of 02/12/01 permit)

18. Boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.

    (9 VAC 5-80-110)

19. Except as specified in this permit, boilers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B shall be operated in accordance with 40 CFR 60 Subpart Da.
    (9 VAC 5-50-410, 40 CFR 60.40a)

B. Monitoring

1. A continuous emission monitor shall be installed on each stack (stack identification numbers 001, 002, 003, and 004) to measure the opacity of emissions. Each monitor shall be performance tested in accordance with 40 CFR 60 Appendix B, Specification 1. A 30 day notification prior to the demonstration of continuous monitoring system performance and subsequent notification requirements are to be submitted to the Director, Piedmont Regional Office.

   (9 VAC 5-50-410, Condition 40 of 02/12/01 permit, 40 CFR 60.47a (a), 9 VAC 5-50-40)

2. A continuous emission monitoring system (CEMS) consisting of a NO_x monitor and a suitable diluent monitor (either CO_2 or O_2) shall be installed on each boiler (equipment numbers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B). Each NO_x CEMS shall be performance tested in accordance with 40 CFR 60 Appendix B, Specification 2. A 30 day notification prior to the demonstration of continuous monitoring system performance and subsequent notification requirements are to be submitted to the Director, Piedmont Regional Office. Each NO_x CEMS shall meet the quality assurance requirements of 40 CFR 60, Appendix F. Data from the NO_x CEMS shall be used to determine compliance with the emission standard (in lbs/10^6 btu) on a 30 day rolling average. All of the CEMS calculations, data reduction, record keeping, and reporting requirements of 40 CFR 60 Subpart Da shall apply.

   (9 VAC 5-50-410, Condition 41 of 02/12/01 permit, 40 CFR 60.13(a), 40 CFR 60.47a(c) and (d), 9 VAC 5-50-40)

3. A continuous emission monitoring system (CEMS) consisting of a SO_2 monitor and a suitable diluent monitor (either CO_2 or O_2) shall be installed on each boiler (equipment numbers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) at the inlet and the outlet of each SO_2 control device. Each SO_2 CEMS shall be performance tested in accordance with 40 CFR 60 Appendix B, Specification 2. A 30 day notification prior to the demonstration of continuous monitoring system performance and subsequent notification requirements are to be submitted to the Director, Piedmont Regional Office. Each SO_2 CEMS shall meet the quality assurance requirements of 40 CFR 60, Appendix F. Data from the SO_2 CEMS shall be used to determine compliance with the emission standard (in lbs/10^6 btu) on a 3 hour rolling average basis and percent reduction on a 30 day rolling average basis. All of the CEMS calculations, data reduction, record keeping, and reporting requirements of 40 CFR 60 Subpart Da shall apply.

   (9 VAC 5-50-410, Condition 42 of 02/12/01 permit, 40 CFR 60.13(a), 40 CFR 60.47a (b) (1) and (d), 9 VAC 5-50-40)

4. NO_x, SO_2, opacity and diluent monitors shall be operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, or malfunction, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.

   (9 VAC 5-50-410, 40 CFR 60.47a (e), 9 VAC 5-50-40)

5. The permittee shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with a continuous monitoring

system, the permittee shall supplement emission data with other monitoring systems approved by the Director, Piedmont Regional Office or the reference methods and procedures listed below:

a. Method 6 shall be used to determine the SO_2 concentration at the same location as the SO_2 monitor. Samples shall be taken at 60-minute intervals. The sampling time and sample volume for each sample shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Each sample represents a 1 hour average.

b. Method 7 shall be used to determine the NO_x concentration at the same location as the NO_x monitor. Samples shall be taken at 30-minute intervals. The arithmetic average of two consecutive samples represents a 1-hour average.

c. The emission rate correction factor, integrated bag sampling and analysis procedure of 40 CFR 60 Appendix A Method 3B shall be used to determine the O_2 and CO_2 concentration at the same location as the O_2 or CO2 monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1-hour average.

d. The procedures in Method 19 shall be used to compute each 1-hour average concentration in lbs/million btu heat input.

(9 VAC 5-50-410, 40 CFR 60.47a (f), 40 CFR 60.47a (h), 9 VAC 5-50-40)

6. If the permittee does not obtain the minimum quantity of emissions data, compliance of the affected facility for the day on which the 30 day period ends may be determined by the Director, Piedmont Regional Office by following the applicable procedures in 40 CFR 60 Appendix A Method 19 Section 7.

   (9 VAC 5-50-410, 40 CFR 60.46a (h), 9 VAC 5-50-40)

7. The 1-hour averages calculated by the CEMS shall be expressed in lbs/mmbtu heat input and shall be used to calculate the average emission rates. At least 2 data points must be used to calculate the 1 hour averages.

   (9 VAC 5-50-410, 40 CFR 60.47a (g), 9 VAC 5-50-40)

8. The permittee may use the following as alternatives to the reference methods and procedures used in monitoring emissions:

   a. For Method 6, Method 6A or 6B (whenever Methods 6 and 3 or 3B data are used) or 6C may be used. Each Method 6B sample obtained over 24 hours represents 24 1 hour averages.

   b. For Method 7, method 7A, 7C, 7D, or 7E may be used. If Method 7C, 7D, or 7E is used, the sampling time for each run shall be 1 hour.

   c. For Method 3, method 3A or 3B may be used if the sampling time is 1 hour.

   d. For Method 3B, Method 3A may be used.

   (9 VAC 5-50-410, 40 CFR 60.47a(j), 9 VAC 5-50-40)

9. The span value for the continuous monitoring systems measuring opacity is between 60 and 80 percent. For continuous monitoring systems measuring NO_x from the individual boilers, the span value shall be 500 ppm.

   (9 VAC 5-50-410, 40 CFR 60.47a (i) (3) and (4), 9 VAC 5-50-40)

10. The span value of the sulfur dioxide continuous monitoring systems at the inlet to the SO_2 control device is 125 percent of the maximum estimated hourly potential emissions of the fuel fired, and the outlet of the SO_2 control device is 50 percent of the maximum estimated hourly potential emissions of the fuel fired.

    (9 VAC 5-50-410, 40 CFR 60.47a (i) (5), 9 VAC 5-50-40)

11. All CEMS required by this permit are subject to 40 CFR 60 Appendix F and to the provisions of performance specifications under 40 CFR 60 Appendix B.

    (9 VAC 5-50-410, 40 CFR 60.13(a), 9 VAC 5-50-40)

12. The permittee shall check the zero (or low level value between 0 and 20 percent of span value) and the span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24 hour zero drift or 24 hour span drift exceeds two times the limits of the applicable performance specifications in 40 CFR 60 Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

    (9 VAC 5-50-410, 40 CFR 60.13(d) (1), 9 VAC 5-50-40)

13. At a minimum the permittee shall have procedures in place for the continuous monitoring systems measuring opacity of emissions to produce a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.

    (9 VAC 5-50-410, 40 CFR 60.13(d) (2), 9 VAC 5-50-40)

14. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required by this permit, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

    a. All continuous monitoring systems for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10 second period and one cycle of data recording for each successive 6-minute period.

    b. All continuous monitoring systems for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

    (9 VAC 5-50-410, 40 CFR 60.13(e), 9 VAC 5-50-40)

15. The permittee shall reduce all opacity data to 6 minute averages and for continuous monitoring systems other than opacity to 1 hour averages. Six minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6 minute period. For continuous monitoring systems other than opacity, 1 hour averages shall be computed from two or more data points equally spaced over each 1 hour period. Data recorded during periods of continuous system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form. All excess emissions shall be converted into units of the standard using the applicable conversion procedures. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the standard.
    (9 VAC 5-50-410, 40 CFR 60.13(h), 40 CFR 60.47a (g))

16. The fabric filters controlling the boilers (pollution control devices numbered 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained and calibrated by the permittee in accordance with the manufacturer's specifications, at a minimum.
    (9 VAC 5-50-280, 9 VAC 5-80-110 B.1.)

17. The differential pressure across each boiler baghouse (pollution control devices numbered 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) shall be recorded once every 12 hours while the associated boiler is operating under normal operating conditions. The permittee shall record the pressure drop as differential pressure, inches water column. If the pressure drop exceeds 10 inches water column, the following actions shall be taken:

    a. The affected baghouse control panel shall be examined for any faults to ensure the baghouse pulse cleaning controls are operating properly. The permittee shall initiate a manual cleaning cycle to ensure the pulse cleaning controls are operating properly. The baghouse differential pressure indication shall be verified for accuracy during this time.

    b. After the control panel has been checked for faults and for proper operation, the baghouse differential pressure shall be checked again. If the pressure drop is 10 inches water column or less, no further action shall be required. If the pressure drop is greater than 10 inches water column, the operator shall verify the boiler firing condition, to include even firing, proper excess boiler oxygen, and ash bed thickness.

    c. If items (a) and (b) are completed and the baghouse pressure drop cannot be reduced to 10 inches water column or less at the existing boiler load, the operating level of the affected boiler shall be reduced to a level where the baghouse is operating at 10 inches water column or less. Items (a), (b), and (c) shall be carried out within 2 hours of the initial determination of the high baghouse pressure drop.

    d. If no other action can reduce the differential pressure drop on the baghouse to 10 inches of water column or less, a particulate test shall be scheduled within 7 working days to verify the compliance status of the unit in regards to the particulate standards listed in Table IV.A.5 at the higher pressure drop. The Director, Piedmont Regional Office shall be notified of the day and time of the planned test. Until the emissions testing is performed and demonstrates compliance with the particulate emissions standards in Table IV.A.5, the affected boiler shall not be operated at a level that results in a baghouse differential pressure greater than 10 inches water column.

e. Performance test reports shall be submitted to the Director, Piedmont Regional Office, within 45 days of conducting the testing described in item (d). The reports shall document the baghouse pressure drop during each run of the test.

(9 VAC 5-50-110 B.1.)

18. The permittee shall conduct monitoring as specified in the Compliance Assurance Monitoring (CAM) Plan Fabric Filter for PM Control.

(9 VAC 5-80-110 and 40 CFR 64.6(c))

19. The permittee shall develop a Quality Improvement Plan (QIP) for the fabric filters if six excursions in a six-month period, as specified in the Compliance Assurance Monitoring (CAM) Plan Fabric Filter for PM Control, occur.
(9 VAC 5-80-110 and 40 CFR § 64.8)

C. Record Keeping

1. The permittee shall maintain records of pressure drop across each baghouse controlling boilers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B. In addition, the permittee shall maintain records of date, time and maintenance performed on these baghouses as a result of the pressure drop exceeding 10 inches water column. Any actions taken which are not described in Condition IV.B.17 shall be noted as such. The permittee shall maintain copies of any testing performed to determine compliance as stated in ConditionIV.B.17.

(9 VAC 5-80-110, 9 VAC 5-50-280, 40 CFR § 64.9)

2. The permittee shall maintain records of all coal shipments purchased indicating sulfur and ash content per shipment. For other solid fuels, the permittee shall collect a composite sample of each fuel burned monthly and maintain on site analyses of the monthly samples indicating sulfur and ash content. These records shall be available on site for inspection by DEQ personnel.

(9 VAC 5-170-160, Condition 30 of 02/12/01 permit, 9 VAC 5-50-50)

3. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Regional Office. These records shall include, but are not limited to:

a. The monthly throughput of each type of fuel combusted in each boiler, calculated as the sum of the previous 12 month period;

b. All fuel supplier certifications;

c. A daily log containing the following information for materials that are used during boiler startups, not including materials recommended by the manufacturer for this use, and combustion of non-hazardous wastes:

(1) Date of combustion;

(2) Type of material combusted;

(3) Amount of material combusted;

(4) Origin of material combusted;

(5) Type and duration of any boiler or control equipment malfunction while combusting the non-hazardous wastes.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-170-160, Condition 38 of 4/20/98 permit, 9 VAC 5-50-50)

4. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate and residual oil. Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier,

   b. The date on which the oil was received,

   c. The volume of oil delivered in the shipment,

   d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, or a statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil number 4, and

   e. The sulfur content of the oil.

   (9 VAC 5-80-110, Condition 29 of 02/12/01 permit, 9 VAC 5-50-50)

5. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility (equipment numbers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B); any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system is inoperative.

   (9 VAC 5-50-410, 40 CFR 60.7(b), 9 VAC 5-50-50)

6. The permittee shall maintain a file of the following:

   a. All measurements, including continuous monitoring system and performance testing measurements;

   b. All continuous monitoring system performance evaluations;

   c. All continuous monitoring system or monitoring device calibration checks; and

   d. Adjustments and maintenance performed on the CEM systems;

   (9 VAC 5-50-410, 40 CFR 60.7(f), 9 VAC 5-50-50)

7. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boilers and air pollution control equipment. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.

   (9 VAC 5-80-110, General Condition 5 of 02/12/01 Permit, 9 VAC 5-50-50)

8. The permittee shall maintain records of the rated capacities, DEQ approved, pollutant-specific emission factors, test data, and equations used to demonstrate compliance with the VOC, CO, and PM_{10} limitations contained in Table IV.A.5. The permittee shall also maintain a record of the most recent compliance tests as required by Conditions IV.D.5 and IV.D.6 . Lastly, the permittee shall maintain records of the calculated actual emission rates of PM_{10} , VOC, and CO for boilers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B.

   (9 VAC 5-80-110)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.

   (9 VAC 5-50-30, 9 VAC 5-80-110, General Condition 3 of 02/12/01 Permit)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 25A
NOx	EPA Method 19
SO2	EPA Method 19
CO	EPA Method 10
PM/PM10	EPA Methods 5, 201
Visible Emission	EPA Method 9
Beryllium	EPA Method 104
Sulfuric Acid Mist	EPA Method 8
Mercury	SW-846-M0011 (or as may be approved by DEQ)
Formaldehyde	EPA Methods 29, 101A (or as may be approved by DEQ)

   (9 VAC 5-80-110, Condition 17 of 02/12/01 Permit, 40 CFR 60.48a (b), 40 CFR 60.48a(c))

3. To determine particulate matter compliance, the dry basis F factor procedures in Method 19 shall be used to compute the emission rate of particulate matter. For particulate matter concentration, Method 5 shall be used.

   a. Sampling time and sample volume for each run shall be at least 120 minutes and 60 dscf. The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of not greater than 320E∀25EF.

b. For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O_2 concentrations. The O_2 sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the O_2 traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O_2 traverse points. If the grab sampling procedure is used, the O_2 concentration for the run shall be the arithmetic mean of all the individual O_2 concentrations at each traverse point.

(9 VAC 5-50-410, 40 CFR 60.48a (b))

4. As the alternative fuels which may be used in place of or in conjunction with coal become available, stack emission tests for particulates, SO_2, SO_2 removal efficiency, NO_x, sulfuric acid mist, beryllium, and CO from each boiler shall be conducted within 60 days after achieving the maximum production rate but in no event later than 180 days after start-up of the permitted facility. Stack tests for new or modified sources shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9 VAC 5-60-70. At the same time, opacity tests, in accordance with 40 CFR 60 Appendix a Method 9 shall also be conducted on the boiler stacks. The details of the emission tests are to be arranged with the Director, Piedmont Regional Office.

   (9 VAC 5-80-1180, Condition 26 and General Condition 2 of 02/12/01 Permit)

5. Once during the 5 year term of this Title V permit, and once every 5 years thereafter, the permittee shall conduct stack emission tests for beryllium and sulfuric acid mist on one stack to ensure compliance with the emission limitations stated in Table IV.A.5. These tests shall take place within 18 months of initial issuance of this Title V permit, and the boilers exhausting to that stack shall be operating at a minimum of 80% of their maximum rated capacity. These stack tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9 VAC 5-60-70 of State Regulations. The details of the emission tests are to be arranged with the Director, Piedmont Regional Office. The permittee shall submit to the Director, Piedmont Regional Office a protocol for each emissions test 30 days prior to the test date. If the tests show non-compliance with either limitation, tests for that pollutant shall be conducted on all other stacks at the facility within 6 months of the original test showing non-compliance.

   (9 VAC 5-80-110)

6. Once during the 5 year term of this Title V permit, and once every 5 years thereafter, the permittee shall conduct stack emission tests for VOC, CO and PM_{10} on one stack to ensure compliance with the emission limitations stated in Table IV.A.5. These tests shall take place within 18 months of initial issuance of this Title V permit, and the boilers exhausting to that stack shall be operating at a minimum of 80% of their maximum rated capacity. These stack tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9 VAC 5-60-70 of State Regulations. The details of the emission tests are to be arranged with the Director, Piedmont Regional Office. The permittee shall submit to the Director, Piedmont Regional Office a protocol for each emissions test 30 days prior to the test date. If the tests show non-compliance with any limitation, tests for that pollutant shall be conducted on all other stacks at the facility within 6 months of the original test showing non-compliance.
(9 VAC 5-50-30, 9 VAC 5-80-110)

E. Reporting

1. The permittee shall furnish written notification to the Director, Piedmont Regional Office of:

   a. The actual date on which the installation of the natural gas and fuel oil burners takes place, within 30 days after such date;

   b. The actual start-up date of the natural gas and fuel oil burners, within 15 days after such date;

   c. The actual dates upon which the following fuels become available to be fired at the facility, within 30 days after such date: PPF, wood chips, and fly ash briquettes.

   (9 VAC 5-170-160, 9 VAC 5-50-50, Condition 37 of 02/12/01 permit)

2. Written reports containing the following information to the CAM plan shall be submitted to the Piedmont Regional Office no later than **March 1** for the reporting period of July 1 through December 31 and **September 1** for the reporting period of January 1 through June 30 of each calendar year. This report shall be signed by a responsible official, consistent with 9 VAC 5-80-80G, and shall include the following:

   a. A summary of information on the number, duration and cause (including unknown causes if applicable) of excursions and the corrective actions taken;

   b. A description of actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the plan has been completed and reduced the likelihood of similar levels of excursions.

   (9 VAC 5-80-10 and 40 CFR § 64.9 (a)(2))

3. Period of excess emissions shall be defined as all 6 minute periods during which the average opacity exceeds the opacity standards listed in Condition IV.A.10. Opacity levels in excess of these standards and the date of such excesses are to be submitted to the Director, Piedmont Regional Office each calendar quarter.

   (9 VAC 5-50-410, 40 CFR 60.49a (h), 9 VAC 5-50-50)

4. The permittee shall submit excess emissions and monitoring systems performance reports and summary report forms to the Director, Piedmont Regional Office, quarterly. All reports shall be postmarked by the 30th day following the end of each calendar quarter. Written reports of excess emissions shall include the following information:

   a. The magnitude of excess emissions, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

   b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facilities (equipment numbers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B). The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

   c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

   d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

   (9 VAC 5-50-410, 40 CFR 60.7(c), 40 CFR 60.49a(i), 9 VAC 5-50-50)

5. The following information shall be reported in the quarterly report to the Director, Piedmont Regional Office for SO_2 and NO_x for each 24 hour period:

   a. The calendar date;

   b. The average NO_x emission rates in lbs/mmbtu for each 30 successive boiler operating days, ending with the last 30 day period in the quarter; reasons for non-compliance with the emission standards; and, a description of corrective actions taken;

   c. The average SO_2 emission rates in lbs/mmbtu for each 3 hour rolling average, ending with the last 3 hour rolling average period in the quarter; reasons for non-compliance with the emission standards; and, a description of corrective actions taken;

   d. Percent reduction of SO_2 for each 30 successive boiler operating days, ending with the last 30 day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.

   e. Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 18 hours of operation of the facility; justification for not obtaining sufficient data; and a description of corrective actions taken.

   f. Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_x only), or other reasons, and justification for excluding data for reasons other than startup, shutdown, or malfunction.

   g. Identification of F factors used for calculations, method of determination, and type of fuel combusted.

   h. Identification of times when hourly averages have been obtained based on manual sampling methods.

i. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

j. Description of any modifications to the continuous monitoring system which could effect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.

(9 VAC 5-50-410, 40 CFR 60.49a(b), 9 VAC 5-50-50)

6. If the minimum quantity of emission data is not obtained for any 30 successive boiler operating days, the following information shall be reported in the quarterly report for that 30 day period:

a. The number of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i), as applicable.

b. The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable.

c. The lower confidence limit for the mean outlet emission rate (E_0^*) and the upper confidence limit for the mean inlet emission rate (E_i^*) as applicable.

d. The applicable potential combustion concentration.

e. The ratio of the upper confidence limit for the mean outlet emission rate (E_o^*) and the allowable emission rate (E_{std}) as applicable.

(9 VAC 5-50-410, 40 CFR 60.49a(c), 9 VAC 5-50-50)

7. For any periods for which opacity, SO_2, or NO_x emissions data are not available, the permittee shall submit a signed statement with the quarterly report indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and boiler(s) during periods of data unavailability are to be compared with operation of the control system and boiler(s) before and following the period of data unavailability.

(9 VAC 5-50-410, 40 CFR 60.49a(f), 9 VAC 5-50-50)

8. With the quarterly report, the permittee shall submit a signed statement indicating whether:

a. The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.

b. The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.

c. The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.

d. Compliance with the standards has or has not been achieved during the reporting period.

(9 VAC 5-50-410, 40 CFR 60.49a(g), 9 VAC 5-50-50)

9. The permittee shall report the following information as a supplement to the quarterly reports required by this permit:

   a. Periods, as described in Conditions IV.B.16 and IV.B.17, when the differential pressure across baghouses 1A, 1B, 2A, 2B, 3A, 3B, 4A, or 4B exceeded 10 inches water column; duration of such event; and actions taken in response to the high pressure drop reading.

   b. Periods when the fuel throughputs exceeded the limitations listed in Conditions IV.A.14 and IV.A.15.

   c. Episodes when the heat input of TDF was more than 20% of the total heat input to a boiler.

   d. Periods when fuels not listed in Condition IV.A.16, and not manufacturer's recommended materials, were used as startup fuels.

   e. Periods when fuels other than those listed in Condition IV.A.11 were fired in the boilers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B.

   f. Periods when any non-hazardous wastes not specifically allowed by Condition IV.A.17 were fired in the boilers 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B.

   (9 VAC 5-80-110)

10. The permittee may submit electronic quarterly reports for SO_2 and/or NO_x and/or opacity in lieu of submitting the written reports required by this permit. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the permittee shall coordinate with the Director, Piedmont Regional Office to obtain their agreement to submit reports in this alternative format.

    (9 VAC 5-50-410, 40 CFR 60.49a(j), 9 VAC 5-50-50)

V. Handling System (FS3), Storage Bunkers (1-2A, 1-2B, 2-2A, 2-2B, 3-2A, 3-2B, 4-2A, 4-2B), Ash Systems (1-3 and 3-3), and Recycle Ash/Lime Systems (Units 1, 2, 3, and 4)

A. Limitations

1. Particulate emissions from the rail car loading, stock out conveyor discharge, active solid fuel pile, inactive solid fuel pile, and other solid fuel handling operations (FS-3) shall be controlled by wet suppression systems as necessary. The wet suppression systems shall be provided with adequate access for inspection.

   (9 VAC 5-50-280, Condition 5 of 02/12/01 Permit)

2. Particulate emissions from the loading of the two fly ash silos (1-4A, 3-4A), the two bottom ash silos (1-3A, 3-3A), the four recycle ash silos (1-5, 2-5, 3-5, 4-5), and the solid fuel bunkers (1-2A, 1-2B, 2-2A, 2-2B, 3-2A, 3-2B, 4-2A, and 4-2B) shall be controlled by fabric filters. The fabric filters shall have a minimum of 99.9% control efficiency and shall be provided with adequate access for inspection.

   (9 VAC 5-50-280, Condition 6 of 02/12/01 Permit)

3. Particulate emissions from the wet spray mix recycle ash silo unloading/truck loading systems (1-3G, 1-4B, 3-3G, and 3-4B) shall be controlled by wet suppression.

   (9 VAC 5-50-280, Condition 7 of 02/12/01 Permit)

4. Particulate emissions from the dry recycle ash silo unloading/truck loading systems (1-5B, 2-5B, 3-5B, 4-5B) shall be controlled by a fabric filter and a partial enclosure at a minimum. The unloading system shall have a minimum of 98.0% control efficiency.

   (9 VAC 5-50-280, Condition 8 of 02/12/01 Permit)

5. Fugitive dust emissions from the operation of the solid fuel handling system (1-2A, 1-2B, 2-2A, 2-2B, 3-2A, 3-2B, 4-2A, and 4-2B) are specified below. These emissions are derived from the estimated overall emission contribution and are included for emission inventory purposes. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period:

Total Suspended Particulate	1.8 lbs/day	0.3 tons/yr
PM_{10}	1.8 lbs/day	0.3 tons/yr

   (9 VAC 5-50-280, Condition 12 of 02/12/01 Permit)

6. Fugitive dust emissions from each of the dry recycle ash unloading systems (1-5B, 2-5B, 3-5B, and 4-5B) are specified below. These emissions are derived from the estimated overall emission contribution and are included for emission inventory purposes. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period:

Total Suspended Particulate	0.3 lbs/hr	1.3 tons/yr
PM_{10}	0.3 lbs/hr	1.3 tons/yr

   (9 VAC 5-50-280, Condition 13 of 02/12/01 Permit)

7. Visible emissions from all fabric filters except those on the main boilers shall not exceed 5% opacity as determined by EPA Method 9 (Reference 40 CFR 60, Appendix A).
   (9 VAC 5-170-160, Condition 21 of 02/12/01 Permit)

8. Visible emissions from the solid fuel handling operations (FS3) shall not exceed 7% opacity as determined by EPA Method 9 (Reference 40 CFR 60, Appendix A). This limit shall apply to all transfer and handling points in the system. In addition, wet suppression equipment shall be in operation as necessary when solid fuel handling operations are occurring.
   (9 VAC 5-170-160, Condition 22 of 02/12/01 Permit)

9. Visible emissions from the dry recycle ash unloading operations (1-5B, 2-5B, 3-5B, and 4-5B) shall not exceed 10% opacity as determined by EPA Method 9 (Reference 40 CFR 60, Appendix A).
   (9 VAC 5-50-90, Condition 23 of 02/12/01 Permit)

10. The throughput of recycle ash to each unloading system shall not exceed 21,024 tons per year or 84,096 tons per year for the entire facility calculated as the sum of the previous 12 month period on a dry-weight basis.
    (9 VAC 5-170-160, Condition 36 of 02/12/01 Permit)

11. Particulate emissions from baghouses, binvents, and where wet suppression must be used shall be controlled by proper operation and maintenance of the control equipment. At a minimum, baghouses, binvents, and wet suppression equipment shall be maintained and operated according to manufacturers specifications. Operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.
    (9 VAC 5-80-110)

B. Monitoring and Record Keeping

1. Each baghouse, except those controlling the main boilers, and each unit using wet suppression shall be observed visually at least once each calendar month during operations for a brief period of time. The permittee shall determine, during this time, whether or not there are any visible emissions. Any monthly observation of any of these operations which determines the existence of any visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emission evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded. The cause and corrective measures taken shall also be recorded. Records of the monthly determinations and any Method 9 evaluations performed shall be kept on hand for at least 5 years.
   (9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-50-50)

2. The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Regional Office. These records shall include, but are not limited to, the monthly throughput of recycle ash to each unloading system, calculated as the sum of the previous 12 month period.
   (9 VAC 5-170-160, Condition #38 of 02/12/01 Permit, 9 VAC 5-50-50)

3. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the air pollution control equipment. These procedures shall be based on the manufacturer's recommendations, at minimum. The permittee shall record inspections

performed on control equipment and resulting maintenance performed. All records required by this condition shall be kept on site and made available for inspection by the DEQ.

(9 VAC 5-80-110 and General Condition 5 of 02/12/01 Permit)

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.

   (9 VAC 5-50-30, 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
PM/PM10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

D. Reporting

1. Quarterly, the permittee shall report the following information and occurrences:

   a. Periods when the throughputs listed in Condition V.A.10 were exceeded;

   b. Periods when the visible emission limitations listed in Conditions V.A.7, V.A.8, and V.A.9 were exceeded;

   c. Periods when wet suppression required by Conditions V.A.1 and V.A.3 were not used during operations;

   d. Maintenance performed on control equipment due to high readings during the monthly visible emission evaluations required by Condition V.B.1.

   (9 VAC 5-80-110)

VI. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
1-4	Turbine lube oil tank vent	9 VAC 5-80-720 B	VOC	
2-4	Turbine lube oil tank vent	9 VAC 5-80-720 B	VOC	
3-4	Turbine lube oil tank vent	9 VAC 5-80-720 B	VOC	
4-4	Turbine lube oil tank vent	9 VAC 5-80-720 B	VOC	
1-5	Cooling Tower	9 VAC 5-80-720 B	PM	
3-5	Cooling Tower	9 VAC 5-80-720 B	PM	
SK	Parts Cleaner	9 VAC 5-80-720 B	VOC	
5	Emergency diesel power fire pump	9 VAC 5-80-720 C		340 bhp
6	Diesel fuel storage tank	9 VAC 5-80-720 B	VOC	
7	Oil/water separator	9 VAC 5-80-720 B	VOC	
8	Oil/water separator	9 VAC 5-80-720 B	VOC	

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, record keeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

VII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of applicability
60.42a(a)	Standard for Particulate Matter	Streamlined into more stringent BACT requirement from 002/12/01 permit
60.42a(b)	Standard for Particulate Matter (VEE)	Streamlined into more stringent BACT requirement from 002/12/01 permit.
60.43a(a) 60.43a(b) 60.43a(g) 60.43a(h)(2)	Standard for SO_2 (solid fuel, liquid fuel, combined fuels, and basis for averaging)	Streamlined into more stringent BACT requirement from 002/12/01 permit.
60.44a(a)(1)	Standard for NO_x (all except gaseous fuels)	Streamlined into more stringent BACT requirement from 002/12/01 permit.
60.44a(d)	Standard for NO_x from boilers built after July 9, 1997.	Not applicable since boilers were built before 1997.
63.7500(a)(2)	Standard for HAPs emitted from industrial, commercial, and institutional boilers and process heaters.	Not applicable to cogeneration units that generate more than 25 MW of electricity.

Nothing in this permit shield shall alter the provisions of § 303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to § 114 of the federal Clean Air Act, (ii) the Board pursuant to § 10.1-1314 or § 10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to § 10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

VIII. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable. (9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Record keeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

c. The company or entity that performed the analyses.

d. The analytical techniques or methods used.

e. The results of such analyses.

f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ seminannually. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the report.

b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

(1) exceedance of emissions limitations or operational restrictions;

(2) excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or

(3) failure to meet monitoring, record-keeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”
(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to ə 114(a)(3) and ə 504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Piedmont Regional Office, within four daytime business hours, of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the occurrence, the permittee shall provide a written statement explaining the problem, any corrective actions or preventive measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to general condition IX.C.2. of this permit.
(9 VAC 5-80-110 F.2, 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, XXXX Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the PRO Region.
(9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Action for Cause

1. A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.

(9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the board, within a reasonable time, any information that the board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the board along with a claim of confidentiality.

   (9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.

   (9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H, 9 VAC 5-80-340 C.)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited, to the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and

5. The prompt removal of spilled or traced dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

   (9 VAC 5-40-90 or 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80 Article 1.
(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
   (9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the board if additional federal requirements become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.
   (9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
   (9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
   (9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
   (9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 of the following are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. a malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

   d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly

deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

e. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

f. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The board may suspend, under such conditions and for such period of time as the board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substance subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A - F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required, under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110 except subsection N shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)(9 VAC 5-80-250)

IX. NOx Allowance Budget Trading Permit Requirements

A. General Conditions

1. A review of the air emission units included in this permit approval has determined that the equipment listed in the following table meets the definition of a NO_X Budget Unit and is subject to the NO_X Budget emission limitations under 9 VAC 5-140-40, or for opt-in sources 9 VAC 5-140-800. As required by 9 VAC 5-140-200 A for each NO_X Budget source required to have a federally enforceable permit, such permit will include the NO_X Allowance Budget Trading permit to be administered by the permitting authority. This section represents the NO_X Budget Trading permit.
   (9 VAC 5-140-40)

2. The NO_X Budget Trading permit will be administrated by the DEQ under the authority of 9 VAC 5 Chapter 80, Part II, Articles 1 and 3 (9 VAC 5-80-50 et seq. and 9 VAC 5-80-360 et seq.), and 9 VAC 5 Chapter 140, Part I (9 VAC 5-140-10 et seq.).
   (9 VAC 5-140-10)

3. The following air emission units have been determined to meet the applicability requirements as provided in 9 VAC 5-140-40 A.1 and A.2. Units that do not meet this definition, are not defined as 25-Ton Exemption Units and are not permanently shutdown can be included in the NO_X Budget Trading program as "opt-in" air emission sources.
   (9 VAC 5-140-40 A)

Table 0 – 1
Facility NO_X Budget Units

Facility Unit ID	NATS Account ID	Unit Name and description	Maximum Heat Capacity (MMBtu/hr)	Maximum Generation Capacity (1000 pounds steam per hour)
BLR01A	054081-BLR01A	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR01B	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR02A	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR02B	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR03A	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR03B	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR04A	Combustion Engineering Stoker Boiler/1991	375	295
BLR04B	054081-BLR04B	Combustion Engineering Stoker Boiler/1991	375	295

4. This NO_X Budget Trading permit will become effective on May 31, 2004.
(9 VAC 5-140-240.1)

B. Standard Requirements

1. Monitoring requirements.

   a. The owners and operators and, to the extent applicable, the NO_X authorized account representative of each NO_X Budget source and each NO_X Budget unit at the source shall comply with the monitoring requirements of Part I, Article 8 (9 VAC 5-140-700 et seq.).
   (9 VAC 5-140-60 B.1)

   b. The emissions measurements recorded and reported in accordance with (9 VAC 5-140-700 et seq.) (Subpart H of 40 CFR Part 97) shall be used to determine compliance by the unit with the NO_X Budget emissions limitation under paragraphs B.2.a through B.2.h.
   (9 VAC 5-140-60 B.2)

2. Nitrogen oxides requirements.

   a. The owners and operators of each NO_X Budget source and each NO_X Budget unit at the source shall hold NO_X allowances available for compliance deductions under 9 VAC 5-140-540 A, B, E, or F, as of the NO_X allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NO_X emissions for the control period from the unit, as determined in accordance with Part I, Article 8 (9 VAC 5-140-700 et seq.), plus any amount necessary to account for actual utilization under 9 VAC 5-140-420 E for the control period or to account for excess emissions for a prior control period under 9 VAC 5-140-540 D or to account for withdrawal from the NO_X Budget Trading Program, or a change in regulatory status, of a NO_X Budget opt-in unit under 9 VAC 5-140-860 or 9 VAC 5-140-870.
   (9 VAC 5-140-60 C.1)

   b. Each ton of nitrogen oxides emitted in excess of the NO_X Budget emissions limitation shall constitute a separate violation of 9 VAC 5 Chapter 140, Part I, the Clean Air Act, and applicable Virginia Air Pollution law.
   (9 VAC 5-140-60 C.2)

   c. A NO_X Budget unit shall be subject to the requirements under 9 VAC 5-140-60 C.1 starting on the later of May 31, 2004, or the date on which the unit commences operation.
   (9 VAC 5-140-60 C.3)

   d. NO_X allowances shall be held in, deducted from, or transferred among NO_X Allowance Tracking System accounts in accordance with Part I, Article 5 (9 VAC 5-140-400 et seq.), Article 6 (9 VAC 5-140-500 et seq.), Article 7 (9 VAC 5-140-600 et seq.), and Article 9 (9 VAC 5-140-800 et seq.).
   (9 VAC 5-140-60 C.4)

   e. A NO_X allowance shall not be deducted, in order to comply with the requirements under 9 VAC 5-140-60 C.1 for a control period in a year prior to the year for which the NO_X allowance was allocated.
   (9 VAC 5-140-60 C.5)

f. A NO_X allowance allocated by the permitting authority or the administrator under the NO_X Budget Trading Program is a limited authorization to emit one ton of nitrogen oxides in accordance with the NO_X Budget Trading Program. No provision of the NO_X Budget Trading Program, the NO_X Budget permit application, the NO_X Budget permit, or an exemption under 9 VAC 5-140-50 and no provision of law shall be construed to limit the authority of the United States or the State to terminate or limit such authorization.

(9 VAC 5-140-60 C.6)

g. A NO_X allowance allocated by the permitting authority or the administrator under the NO_X Budget Trading Program does not constitute a property right.

(9 VAC 5-140-60 C.7)

h. Upon recordation by the administrator under Part I, Article 6 (9 VAC 5-140-500 et seq.), Article 7 (9 VAC 5-140-600 et seq.), or Article 9 (9 VAC 5-140-800 et seq.), every allocation, transfer, or deduction of a NO_X allowance to or from a NO_X Budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, any NO_X Budget permit of the NO_X Budget unit by operation of law without any further review.

(9 VAC 5-140-60 C.8)

3. Excess emissions requirements.

a. The owners and operators of a NO_X Budget unit that has excess emissions in any control period shall:

(1) Surrender the NO_X allowances required for deduction under 9 VAC 5-140-540 D 1; and

(2) Pay any fine, penalty, or assessment or comply with any other remedy imposed under 9 VAC 5-140-540 D 3.

(9 VAC 5-140-60 D)

C. Recordkeeping and Reporting Requirements.

The following requirements concerning recordkeeping and reporting shall apply:

1. Unless otherwise provided, the owners and operators of the NO_X Budget source and each NO_X Budget unit at the source shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the permitting authority or the administrator.

(9 VAC 5-140-60 E.1)

a. The account certificate of representation for the NO_X authorized account representative for the source and each NO_X Budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 9 VAC 5-140-130; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate of representation changing the NO_X authorized account representative.

(9 VAC 5-140-60 E.1)

b. All emissions monitoring information, in accordance with Part I, Article 8 (9 VAC 5-140-700 et seq.), provided that to the extent that Part I, Article 8 (9 VAC 5-140-700 et seq.) provides for a three-year period for recordkeeping, the three-year period shall apply.

(9 VAC 5-140-60 E.1)

c. Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_X Budget Trading Program.

(9 VAC 5-140-60 E.1)

d. Copies of all documents used to complete a NO_X Budget permit application and any other submission under the NO_X Budget Trading Program or to demonstrate compliance with the requirements of the NO_X Budget Trading Program.

(9 VAC 5-140-60 E.1)

2. The NO_X authorized account representative of a NO_X Budget source and each NO_X Budget unit at the source shall submit the reports and compliance certifications required under the NO_X Budget Trading Program, including those under Part I, Article 4 (9 VAC 5-140-300 et seq.), Article 8 (9 VAC 5-140-700 et seq.), or Article 9 (9 VAC 5-140-800 et seq.).

(9 VAC 5-140-60 E.1)

D. Testing

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.

(9 VAC 5-50-30 and 9 VAC 5-140-300)

E. Liability

1. Any person who knowingly violates any requirement or prohibition of the NO_X Budget Trading Program, a NO_X Budget permit, or an exemption under 9 VAC 5-140-50 shall be subject to enforcement pursuant to applicable State or Federal law.

(9 VAC 5-140-60 F.1)

2. Any person who knowingly makes a false material statement in any record, submission, or report under the NO_X Budget Trading Program shall be subject to criminal enforcement pursuant to the applicable State or Federal law.

(9 VAC 5-140-60 F.2)

3. No permit revision shall excuse any violation of the requirements of the NO_X Budget Trading Program that occurs prior to the date that the revision takes effect.

(9 VAC 5-140-60 F.3)

4. Each NO_X Budget source and each NO_X Budget unit shall meet the requirements of the NO_X Budget Trading Program.

(9 VAC 5-140-60 F.4)

5. Any provision of the NO_X Budget Trading Program that applies to a NO_X Budget source or the NO_X authorized account representative of a NO_X Budget source shall also apply to the owners and operators of such source and of the NO_X Budget units at the source.

(9 VAC 5-140-60 F.5)

6. Any provision of the NO_X Budget Trading Program that applies to a NO_X Budget unit or the NO_X authorized account representative of a NO_X budget unit shall also apply to the owners and operators of such unit. Except with regard to the requirements applicable to units with a common stack under Article 8 (9 VAC 5-140-700 et seq.), the owners and operators and the NO_X authorized account representative of one NO_X Budget unit shall not be liable for any violation by any other NO_X Budget unit of which they are not owners or operators or the NO_X authorized account representative and that is located at a source of which they are not owners or operators or the NO_X authorized account representative.

   (9 VAC 5-140-60 F.6)

F. Effect on Other Authorities.

No provision of the NO_X Budget Trading Program, a NO_X Budget permit application, a NO_X Budget permit, or an exemption under 9 VAC 5-140-50 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NO_X authorized account representative of a NO_X Budget source or NO_X Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, the Clean Air Act.
(9 VAC 5-140-60 G)